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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/744,493	06/19/2001	Vincent Bryan	46739/252170	5642
27683 7	590 12/14/2004		EXAMINER	
HAYNES AND BOONE, LLP			STEWART, ALVIN J	
901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			ART UNIT	PAPER NUMBER
,			3738 DATE MAIL ED: 12/14/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

U.S. Patent and Trademark Office

1) Notice of References Cited (PTO-892)

Paper No(s)/Mail Date \_

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)

4) Interview Summary (PTO-413)

Paper No(s)/Mail Date. \_

6) Other:

5) Notice of Informal Patent Application (PTO-152)

Art Unit: 3738

### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16 & 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Lines 3-5 are not clear.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The applied reference has common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

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Claims 1, 2, 4, 7-10, 12, 13, and 16-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Bryan et al US Patent 5,674,296.

Bryan et al discloses a spinal disc implant comprising a cylindrical housing (42 & 44, the plates have cylindrical shape), the housing includes an upper half (42) and a lower half (44) and a plurality of resilient viscoelastic discs (20 & 22) interposed between the housing.

Regarding claim 2, the Examiner interpreted the claims as following: Figure 6 discloses two ovoid discs (one on top of the other) interposed between an upper half (located below vertebrae 372) and lower half (located above vertebrae 374).

Regarding claim 4, see element structures 102 and 104.

Regarding claim 20, see Fig.4, element structure 110.

Regarding claim 21, see Fig. 4.

NOTE: the word "viscoelastic" does not need to be made of hydrogel. See attachment to see the meaning of the word "viscoelastic".

Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Navas US Patent 5,375,823.

Navas discloses an implant (see Fig. 4) comprising a cylindrical housing (1), the housing includes an upper half (7) and a lower half (10) and a plurality of resilient viscoelastic discs (4 & 6) interposed between the housing.

Regarding claim 3, the internal cavity is concave and has at least one post (30) extending from the concave surface into a central portion of the disc.

Claims 1, 4-6, 8, 10, 11, 13, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Mehdizadeh US Patent 5,928,284.

Mehdizadeh discloses a spinal disc implant (10) comprising a cylindrical housing (11 & 12), the housing includes an upper half (11) and a lower half (12) and a plurality of resilient viscoelastic discs (13 & filling disclosed in col. 2, lines 51-57) interposed between the housing.

Claims 11, 12, 16, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Rogozinski US Patent 5,888,226.

Rogozinski discloses a spinal disc implant comprising a cylindrical housing the housing includes an upper half (20) and a lower half (20) and a plurality of resilient viscoelastic discs (10) interposed between the housing.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J Stewart whose telephone number is 703-305-0277. The examiner can normally be reached on Monday-Friday 7:00AM-5:30PM(1 Friday B-week off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 703-308-2111. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner Art Unit 3738

December 10, 2004.

# Attachment

whoseral (Med.). See whom.

whoseral meth (2001). See gill arch.

whoseral death (2001). The gill clefts, or

abortive gill clefts of higher Vertebrates.

whoseral good (Vet.). See arisin good. through the familianeous dissipation, and, storage of the mechanical energy. Shown typically by polymers dy the consider ( Phys.). An instrument for measuring viscosity. Many types of viscometer employ Polemile's formula for the rate of flow of a viscous fluid through a capillary boarophasts (Med.). See esterophets.

becomestic (Phys.). A solid or liquid which when defirmed exhibits both viscous and clastic behaviour? especially the

cellulose made from wood pulp or cotton liners dissolved in aqueous sodium hydroxide containing carbon distulbule. After passing the viscous solution through spinners to the cellulose is regenerated in fibre form by passing it through mineral acids.

I have been by passing it through mineral acids.

I have been to flow. Such shear resistance is proportional to the relative velocity between the two surfaces on either side of a layer of fluid, the area in thear, the confliction of reaching to the fluid and the reciprocal of the thickness of the layer of fluid. For comparing the viscosities of liquids various cales have been devised, e.g. Redwood No. 1 second (UK), 200601 Universal seconds (US), Engler degrees (Germany). See also because the second and the second solutions of the layer of fluid the second (US), Engler degrees (Germany). See also because the second solutions of the layer of fluid the second (US), Engler degrees (Germany). acces (Chem.). See cellulose xamihate. Fibres of regenerated ip or cotton linters

descouses (Bulld). A state size, 18×10m.
(457×254mm)

elecouse damping (Phys.). Opposing force, or torque, proportional to velocity, e.g., resulting from viscosity of oil or from eddy currents.

elecouse flow (Phys.). A type of fluid flow in which fluid elections flow (Phys.). A type of fluid flow in which fluid which affects the case of application of paints. also kinematic vincesity.

In ability of a paint (Build.). The ability of a paint to flow

particles, considered to be aggregates of molecules, move along streamlines so that at any point in the fluid the velocity is constant or varies in a regular manner with respect to time, random motion being only of a molecular nature. The name is also used to describe laminar flow or

streamline flow.

stocus bysicrossis (Elec.Eng.). The phenomenon of timeing between the intensity of magnetization and the
magnetizing force producing it.

states: (Med.Zool.). Any one of the organs situated
within the chest and the abdomen: heart, lungs, liver,
spiten, intersines, etc. pl. vizera, adj. vizerad.

state (Eng.). See wise.

states (Eng.). See wise.

states (Eng.). See wise.

states (Eng.). The suphaste-bearing equivalent of
correlate, found in unphabine syenite.

states (Facero.). The ratio of the luminous flux, in
lumens, to the corresponding energy flux, in water,

states (Facero.). The maximum distance at which a
black object of mifficient size can be seen and recognized
in accurated solubility.

in normal daylight.

"In relation between visibility and wavelength. Owing to varying sensitivity of the eye, this curve indicates a maximum at \$55 mm, which is a tright green.

substity meeter (Meteor.). A name with the visibility to a standardized value, and measures such substry sector (Teleconon.). The ratio of the minimum signal imput power to a radar, TV or facamile receiver for which an ideal instrument can detect the output signal, to the corresponding value when the output signal is detected by an observer watching the CRT.

as seen from observer's position. Also called apparent or

neutable normon, Execution (Phys.). Electromagnetic radiation which falls within the wavelength range of 780 to 380 mm, over which the normal eye is sensitive.

patterns corresponding to characteristic used as an aid to speech training and See senegram. resolving power of the eye. Measured minimum angle of separation which is at the eye between two points being the eye. highting system known as the Vineda Abbrev. VASI. being directed through restricting the is below, on or above and in the path for an accurate touchdown. It has a factor of the form a state of the form a state of the form a state of the form as the by the picture signal,

Abbre. VAS.

Components may be seen as excursion resolving power.

Sufficient resolving power.

It is sufficiently about the resolving power.

The sufficient resolving power.

The sufficient resolving power.

Sufficient resolving p

vanil tight rain (Arc.). The incomposition of the countrolling authority raining the fights may be carried out with instructions. The regulations instructions are regulations of the distance to be maintained for the distance to be maintained cloud Abbrev. VFR. cloud. Abbrev. VFR.

dual metaorological conditions in which an aircraft can in traffic control except in cars. air-traffic control except in con-

was purple (Phys.). See the second range (Phys.). Observations particles in bubble chamber, at many praphic emulsion. part of good airmanship presents and a good airmanship present and the present of the control of pigment; iodopsin. graphic emulaion.

where the transfer of the property of the p

group of the light sensitive products are rich sources of products are ric without killing them.

an in enzymic interconversions of acyl phylations. Used in the treatment of

th and causes the disease ricketts. Fish the nich source and the vitamin can, in in the skin from cholesterol.

i), a-lacopherol. A vitamin involved in the shape leads to sterility in both sexes. 렃

phosphoprotein present in the yolk of Yolk-secreting or producing

). Egg-yellow; pertaining to yolk. (Zool.). A protective membr

FIN for synthetic rubber based on a synthetic fluoride and hexa-fluoropro-

(Eng.). Glazed coating fused on to steel sion and/or decoration. (Zool.). The jelly-like substance filling inher of the Vertebrate eye, between the

The former has minute gas bubbles. Also fused silica, quartz glass, silica less). A vitreous material consisting of silica, made in translucent and

by supercooling the melt. Also glassy lys.). A non-crystalline solid or rigid

Ag.). The incorporation of radioactive

. .

thing results in the disease beri-beri and cereal germs. (2) B2 (riboflavin) fight prosthetic group of flavoproteins Component of the coenzyme nicotin muchotide, NAD. Deficiency results in

han the diet for the proper functioning of the causes deficiency diseases curable by all the appropriate vitamin. There are two fur soluble, vitamins A, D, E and K, and A necessary requirement for the mainrumbin, the precursor of thrombin, the precursor of thrombin, the precursor of thrombin. Organic substances required in relatively

we vitamin C and the vitamins of the B (): A yolk-forming gland.

in fertilized ovum to prevent the entry of

Wolk of egg. suchy depigmentation of the skin often suration line and associated with auto-

tits, rubber-like properties over a very resistant.

ment of coenzyme A. (6) Biotin. The (Biol.). (1) B1 (thiamin). As its functions as a coemzyme of various function as a coemzyme of various function results in the disease beri-beri. gra (4) B6 (pyridoxal). As its phosphate Component of the coenzyme cobalamin include the synthesis of purines. (8)

fruit and green vegetables are important raions and blood vessel weaknesses which sina. Liver is a rich source.

bi). Ascorbic acid. Important in the following of collagen which in its absence is advantaged. The defective collagen pro-

1). Calciferol. The vitamin involved in

voice is produced.

voice is produced.

In many male Frogs, loose folds of skin special sac (Zool.). In many male Frogs, loose folds of skin at each angle of the mouth which can be inflated from at each angle of the mouth into a globular form, and act as within the mouth into a globular form, and act as

speech using recorded speech elements.

speech using recorded speech elements.

redus (Telecomm.). Abbrev. for Voice Operated Device

anti-Sing; used for the suppression of echoes in transoceanic radio telephony.

oceanic radio telephony.

reder (Acous.). Voice operation demonstrator. System for

reder (Acous.). Voice operation demonstrator. racacter (Acous.). Voice coder. System for synthetic producing synthetic speech through keyboard control of

and (Telegram). Abbrev. for Voice Operated Gain-Adjusting Device. Used in telephone systems to give an approximately constant volume output for a wide range of input signals. A hornblende-lamprophyre, the other resemble constituent being orthoclase. Cf. spenarize, essential constituent being orthoclase. Cf. spenarize, rates call (Acous.). The coil attached to the cone of a loudspeaker. The coil currents react with the magnetic field to drive the cone. Also used in microphomes to

fundamental frequency which is determined by the tension of the oscillating muscles in the laryax. voice the (Acous). Device which deliberately distorts generate the signal niced each, an elemental sound in which the component frequencies are exact multiples of a which the component frequencies speech for specific purpose, e.g. telephonic imitation

composite materials (e.g. glass beads in a metal matrix) and synthetic minerals. See Symoc. with this (Geol.). An oxygen-rich maceral that is found in coal.

witriot (Chem.). Sulphuric acid. Also oil of. witriol (Min.). See blue-, green-, white-.

disruption of highly vesticular glassy rocks, most of the component fragments thus having concave outlines. have already reached an advanced stage of development; rivianitie (Min.). Hydrated iron phosphate (Fe3P2 total (Min.). See blue, green, white-throchastic structure (Geol.). The characteristic structure of volcanic ashes which have been produced by the

cf. origanous. n. viviparity.

wiwhars (Bot.). (1) The production of bulbits or small wiwhars (Bot.). (1) The production of bulbits or small plants in place of flowers, as in e.g. Festuca wivipara. (2) The premature germination of seeds or spores before they are shed from the parent plant as in many mangrove

VLBI (Astron.). Very Long Baseline Interferometry,

technique of aperture synthesis used in reado assuments link telescopes separated by thousands of kilometres. VLF (Telecomm.). Abbrev. for Very Low Frequencies. esis used in radio astronomy to

VLSI (Comp.). Very large scale integration refers to a chip with 100 000 or more logic gates.

VLSI (Electronics). Abbrev. for Very Large Scale Integration, referring to integrated circuits where a component density of the order of 10000 devices is achieved on a

single chip.

VLS mechanism (Phys.). See vapour-liquid-solid mechan

WAITEMS (Comp.). TN for an IBM operating system.

WAIE (Comp.). The ICL proprietary operating system.

WAIO (Electronics). A MOS technology in which four
diffused layers are formed in silicon and V-sharped
grooves are precisely etched in the layers. Metal is then
deposited over silicon dioxide (an insulanor) to form gate
and other electrodes. Higher current densities can be used
than with other MOS techniques and a higher density of
components per thip achieved.

WAIS (Comp.). TN for a DEC operating system for its van (Aero.). Abbrev. for Visual Meteorological Condi-tions.

VAX range of computers.

Van diagram (Aero.). See flight caredage.

van diagram (Aero.). In air-breathing Vertebrates, folds of the liming membrane of the larynx by the vibration of the edges of which, under the influence of the breath, the